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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/835,641 | 04/17/2001 | Takado Kondo | 081848/0180 | 4820 |

22428 7590 06/03/2004

FOLEY AND LARDNER
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

RUTTEN, JAMES D

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2122

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/835,641

Applicant(s)

KONDO, TAKADO

Examiner

J. Derek Rutten

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/27/03, 3/18/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-6 have been examined.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "corrected program corrected from the program stored in said ROM" (claim 3), and the "selecting a second program" (claim 6) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 4, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Description of Related Art on pages 1-4 of the specification and figures 1 and 2 of the Drawings (hereinafter referred to as "DRA") in view of prior art of record Japanese Application Publication 06-332691 to Azuma (hereinafter referred to as "Azuma").

As per claim 1, DRA discloses:

A microcomputer unit (Fig. 1 element 10A) comprising

*a flash memory for storing specified data (page 2 lines 7-9: "The microcomputer 10A includes, in addition to the **flash memory** 13 having a user memory area..."),*

*a ROM storing a program for rewriting the specified data stored in said flash memory (page 2 lines 9-10: "...a mask **ROM** 14 storing a specified program **for rewriting** the data in the **flash memory** 13..."), and*

*a CPU for responding to an external command to execute the program for rewriting the specified data in said flash memory (page 2 lines 12-14: "...a **CPU** 16 for executing the programs in the flash memory 13 and the mask **ROM** 14...").*

DRA does not expressly disclose *a nonvolatile memory for storing version information of said flash memory, and rewriting flash memory based on the version information.*

However, in an analogous environment, Azuma teaches program execution based on stored circuit version information in nonvolatile flash memory (Abstract: "A writing controller 4 writes the program for version up selected based on the **circuit version in the flash memory** 1...").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Azuma's circuit version information in DPA's flash rewrite

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control technique. One of ordinary skill would have been motivated to ensure that flash memory that is being rewritten is only rewritten with a new version, and not with an old version.

As per claim 4, DRA discloses:

A method for rewriting data stored in a flash memory installed in a microcomputer by using a CPU (see FIG. 2), the method comprising the steps of:

determining parameters for the rewriting based on the version information (page 3 lines 11-14: "A user who operates the flash writer 12

recognizes the type and version of the flash memory 13 from the stamp information printed on the microcomputer 10A, and **selects the parameters..."); and**

running the first program on the CPU to rewrite the data in the flash memory based on the parameters (page 3 lines 3-7: "Based on the parameters received, the microcomputer 10A executes the program (flash firmware) stored in the mask memory area of the mask ROM 14, thereby starting the process for rewriting the user memory area (step S23).").

All further limitations have been addressed in the above rejection of claim 1.

As per claim 5, the above rejection of claim 4 is incorporated. All further limitations have been addressed in the above rejection of claim 1.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of DRA and Azuma as applied to claim 1 above, and further in view of U.S. Patent 6,041,319 to Bass et al. (hereinafter referred to as "Bass").

As per claim 2, the above rejection of claim 1 is incorporated. Further, DRA discloses storing parameters in nonvolatile memory for use in rewriting flash memory (page 3 line 24 – page 4 line 2).

DRA does not expressly disclose storing parameters in the same nonvolatile memory along with version information.

However, in an analogous environment, Bass teaches storing various parameters along with version numbers in nonvolatile memory (column 6 lines 1-8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to store Bass' parameters along with the version information in the nonvolatile memory of DRA. One of ordinary skill would have been motivated to provide parameters and version information in one location so that users can readily observe comprehensive system information instead of searching multiple locations.

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of DRA and Azuma as applied to claim 1 above, and further in view of U.S. Patent 5,701,492 to Wadsworth et al. (hereinafter referred to as "Wadsworth").

As per claim 3, the above rejection of claim 1 is incorporated. Further, DRA does not expressly disclose using the nonvolatile memory to store a corrected program.

However, in an analogous environment, Wadsworth teaches using nonvolatile memory to store at least a part of a corrected program (column 2 lines 27-31).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Wadsworth's teaching of program storage in DRA's flash rewrite control system. One of ordinary skill would have been motivated to ensure that the old program is not erased until after correct installation of a new program.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of DRA and Azuma as applied to claim 4 above, and further in view of U.S. Patent 6,496,978 to Ito (hereinafter referred to as "Ito").

As per claim 6, DRA does not expressly disclose selecting and executing a second program based on version information.

However, in an analogous environment, Ito teaches selecting and executing a program based on version information stored in separate memory locations (FIG. 3 elements 33-36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Ito's multiple program selection in DRA's flash rewrite method. One of ordinary skill would have been motivated to execute an appropriate

program based on version information to avoid running old versions of code which often contain bugs.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 6,009,520 to Gharda discloses code describing flash version information, as well as other parameters (column 6 lines 30-41).

U.S. Patent 6,243,809 to Gibbons et al. teaches the storage of various types of information in a flash device (column 1 lines 45-57).

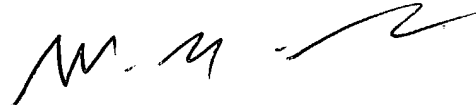
Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Derek Rutten whose telephone number is (703) 605-5233. The examiner can normally be reached on M-F 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (703) 305-4552. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jdr



WEI Y. ZHEN
PRIMARY PATENT EXAMINER